

and at the end of each spaced multibit word of coded information pulses, and said synchronizer means is coupled to said sampler means to receive the coded information pulses for starting the sampling operation of said sampler means at the beginning of each word in response to the portion of predetermined coded information pulse signal characteristics located at the beginning of each word and for resetting the sampling operation thereof for each word in response to the portion of predetermined coded information pulse signal characteristics located at the end of each word.

5. In the circuit of claim 4 in which the portion of predetermined coded information pulse signal characteristics located at the end of each word have a greater duration than the duration of the other individual coded information pulses.

6. An optical reader for reading a coded information medium having a plurality of spaced coded multibit words in a sequence of bars that produce a first level of response or a second level of response to radiation comprising:

means for producing a radiation beam having an elongate cross sectional dimension;

means positioned to receive the radiation beam for repeatedly directing the radiation beam in a radial sweep motion transverse to the elongate cross sectional dimension;

means positioned to direct the radiation beam for angularly rotating the radiation beam about a location in a focal depth whereby the radiation beam sequentially sweeps through the location from different incremental radial angles on each successive sweep throughout 360°;

means positioned for detecting variations in intensity of radiation reflected from the coded information medium within the focal depth as the radiation beam sweeps therethrough and producing coded information pulses in response thereto;

sampler means coupled to receive the coded information pulses of each word for sampling a narrow portion of the signals at a predetermined rate in response to a plurality of sampling pulses equal to the number of data bits in a word and a reset bit; and

a pulse processor means coupled to said sampler means and coupled to receive the sampled coded information pulses for presetting the sampling operation of said sampler before each word in response to the occurrence of a reset signal of predetermined signal characteristics associated with each spaced coded multibit word and for resynchronizing said synchronizer at the start of each word in response to a synchronizing bit associated with each spaced coded multibit word.

7. In the circuit of claim 6, wherein said pulse processor means is responsive to coded information pulses from a portion of the medium which produces one level of response for a duration sufficient to synchronize said synchronizer before sweeping a unique preamble word and said pulse processor means further including recognizer means coupled to receive coded information pulses associated with the preamble word for enabling said pulse processor to process data word coded information pulses only after the unique preamble word is recognized.

8. In the circuit of claim 6 in which the reset signals and the synchronizing bit are respectively located at the beginning of and at the end of each spaced coded multibit word of coded information pulses, and said pulse processor means is coupled to said sampler means and is coupled to receive the coded information pulses for starting the sampling operation of said

sampler means at each multibit word in response to the synchronizing bit at the beginning of each multibit word and for resetting the sampling operation thereof for each multibit word in response to the reset signal located before each synchronizing bit.

9. In the circuit of claim 8 in which the reset signal bit located before each synchronizing bit has a greater duration than the duration of the other coded information pulses.

10. In the circuit of claim 6 in which the reset signal precedes the bit located before each synchronizing bit and has a greater duration than the duration of the other coded information pulses.

11. An apparatus for reading a label having coded information thereon, the coded information including a unique multibit preamble word and a series of multibit data words each word beginning with a sync bit of a first signal level and ending with a reset bit of a second signal level:

means for producing a radiation beam having an elongate, thin cross section;

means positioned to receive the radiation beam for repeatedly directing the radiation beam in a radial sweep motion transverse to the long cross sectional dimension;

means positioned to receive the radiation beam for angularly rotating the radiation beam about a location in a focal depth whereby the radiation beam radially sweeps through the location from a different radial angle on each successive sweep throughout 360°;

means positioned for detecting variations in intensity of radiation reflected from the label within the focal depth as the radiation beam sweeps therethrough and for producing coded information pulses in response thereto;

means for sampling a narrow portion of the coded information pulses in response to a plurality of sampling bits equal to the number of bits in a multibit data word and a reset bit at a predetermined rate synchronized in response to a sync bit pulse at the beginning of each word and being reset by a reset bit pulse at the end of each word, said means for sampling being initially reset by first level of coded information signal reflected from the label before the unique multibit preamble word;

recognizer means coupled to receive signals associated with the preamble word for enabling storing of the coded information pulses of the multibit data words only after unique multibit preamble word pulses have been sampled and recognized;

storage means coupled to receive the sampled coded information pulses of the multibit data words and being responsive to said recognizer means for storing the information associated with the coded information pulses of the series of multibit data words when the radiation beam sweeps the label a first time;

means coupled to said storage means for receiving the stored information pulses and coupled to receive the coded information pulses of the series of multibit data words when the radiation beam sweeps the label a second time for comparing the corresponding signals produced on the first and the second sweeps and generating an output signal only if the first and the second received coded information pulses of the series of data words coincide; and

means coupled to receive the stored information pulses and to receive the output signal from the last said means for further processing the information only when the output signal is received.

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